

Title (en)  
Methods for use in human-adapting monoclonal antibodies

Title (de)  
Verfahren zur Verwendung bei sich an Menschen anpassenden monoklonalen Antikörpern

Title (fr)  
Procédés d'adaptation à l'être humain d'anticorps monoclonaux

Publication  
**EP 2050765 A1 20090422 (EN)**

Application  
**EP 08253381 A 20081017**

Priority  
US 87541607 A 20071019

Abstract (en)  
Methods useful for human adapting non-human monoclonal antibodies are disclosed. The methods select candidate human antibody framework sequences from a database of human germline genes or human sequences with somatic mutations.

IPC 8 full level  
**C07K 16/46** (2006.01); **C07K 16/10** (2006.01); **C07K 16/24** (2006.01)

CPC (source: EP US)  
**C07K 16/1027** (2013.01 - EP US); **C07K 16/241** (2013.01 - EP US); **C07K 16/464** (2013.01 - EP US); **C07K 2317/56** (2013.01 - EP US); **C07K 2317/565** (2013.01 - EP US); **C07K 2317/567** (2013.01 - EP US); **C07K 2317/73** (2013.01 - EP US); **C07K 2317/92** (2013.01 - EP US)

Citation (applicant)

- US 5656272 A 19970812 - LE JUNMING [US], et al
- JONES ET AL., NATURE, vol. 321, 1986, pages 522 - 525
- TEMPEST ET AL., BIOTECHNOLOGY, vol. 9, 1991, pages 266 - 71
- GORMAN ET AL., PROC. NATL. ACAD. SCI. USA, vol. 88, 1991, pages 4181 - 4185
- CO ET AL., J. IMMUNOL., vol. 152, 1994, pages 2968 - 76
- QUEEN ET AL., PROC. NA TL . ACAD. SCI. USA, vol. 86, 1989, pages 10029 - 10033
- KASHMIRI ET AL., METHODS, vol. 36, 2005, pages 25 - 34
- GONZALES, MOL IMMUNOL., vol. 40, 2004, pages 337 - 49
- DALL'ACQUA ET AL., METHODS, vol. 36, 2005, pages 43 - 60
- ALTSCHUL ET AL., J. MOL. BIOL., vol. 215, 1990, pages 403 - 410
- HENIKOFF; HENIKOFF, PROC. NATL. ACAD. SCI. USA, vol. 89, 1992, pages 10915 - 10919
- SALI; BLUNDELL, J. MOL. BIOL., vol. 234, 1993, pages 779

Citation (search report)

- [X] WO 2005112564 A2 20051201 - US GOV HEALTH & HUMAN SERV [US], et al
- [A] WO 2004006955 A1 20040122 - FOOTE JEFFERSON [US]
- [A] WO 2005079479 A2 20050901 - ABSALUS INC [US], et al
- [A] TAN P ET AL: "SUPERHUMANIZED ANTIBODIES: REDUCTION OF IMMUNOGENIC POTENTIAL BY COMPLEMENTARITY-DETERMINING REGION GRAFTING WITH HUMAN GERMLINE SEQUENCES: APPLICATION TO AN ANTI-CD28", JOURNAL OF IMMUNOLOGY, AMERICAN ASSOCIATION OF IMMUNOLOGISTS, US, vol. 169, no. 2, 15 July 2002 (2002-07-15), pages 1119 - 1125, XP008056579, ISSN: 0022-1767
- [A] KHEE HWANG W Y ET AL: "Use of human germline genes in a CDR homology-based approach to antibody humanization", METHODS : A COMPANION TO METHODS IN ENZYMOLOGY, ACADEMIC PRESS INC., NEW YORK, NY, US, vol. 36, no. 1, 1 May 2005 (2005-05-01), pages 35 - 42, XP004852551, ISSN: 1046-2023

Cited by  
US9150641B2; US10047162B2

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Designated extension state (EPC)  
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